

## CONFIRMATION OF *APPIAS CELESTINA* (BOISDUVAL) (LEPIDOPTERA: PIERIDAE) IN AUSTRALIA

R.P. WEIR<sup>1</sup>, C.E. MEYER<sup>2</sup> and S.S. BROWN<sup>3</sup>

<sup>1</sup>1 Longwood Avenue, Leanyer, NT 0812

<sup>2</sup>10 Anne Clark Avenue, Nicholls, ACT 2913

<sup>3</sup>19 Kimberley Drive, Bowral, NSW 2576

### Abstract

A single male *Appias celestina* (Boisduval) was collected at Iron Range, Queensland, in July 1999, confirming the existence of this species in Australia. It is not known if it is permanently established on Cape York Peninsula.

### Introduction

*Appias celestina* (Boisduval) occurs from Waigeo, Kai and Aru Is in eastern Indonesia to Papua New Guinea, including its adjacent islands and the Bismark Archipelago (Braby 2000, Edwards *et al.* 2001). Four undated specimens, mostly in poor condition, were recorded from Cape York, Queensland, by Braby (2000), which he suggested might be vagrants from Papua New Guinea. Waterhouse and Lyell (1914) stated 'It is with considerable doubt that we include this species. We have records of only three examples all of which are supposed to have come from Cape York: none of them are dated but we have no reason to doubt any other of Miskin's records'. Waterhouse (1932) also alluded to H. Elgner residing on Cape York for two years without encountering the species. However, in July 1999, a single male (Figs 1-2), in excellent condition, was collected by one of us (RPW) flying with *A. ada* (Stoll) at Iron Range, Cape York Peninsula.



Figs 1-2. *Appias celestina*, male. (1) upperside; (2) underside.

## Discussion

The label data of the four previously known specimens are as follows: 1 ♂, Cape York, C.E.B., AN31 000884 (in Queensland Museum, Brisbane, Reg. No. T100918); 1 ♀, 183, Cape York, AN31 00883 (in Queensland Museum, Brisbane, Reg. No. T100919); 1 ♂ (in very poor condition), CAPE YORK, [collector's name not decipherable], -/6/74, G.A. Waterhouse Collection, KL15081 (in Australian Museum, Sydney); 1 ♂, C. York, J.A. Kershaw, LEP-14419, AU 139, Passed through C.W. Wyatt Theft-Coll. 1946-1947 (in Museum of Victoria, Melbourne).

Collection dates for the three examples recorded by Waterhouse and Lyell (1914) are unknown. The Australian Museum specimen was not recorded in that work or in Waterhouse (1932) but appears to have been collected in June 1874. The two specimens in the Queensland Museum have Australian National Insect Collection (ANIC) reference numbers (AN31 000883/884) attached to their labels. The ANIC accession database records the following data entered for these specimens: Location: Cape York (General) 11°30'S, 142°30'E (error > 25 km).

This location data cannot be relied upon, as it was entered as a general location coordinate for Cape York (E.D. Edwards, pers. comm.). The coordinates relate to what is now Heathlands National Park and, most probably, the road junction of Bamaga and Captain Billy's Landing roads, approximately 140 km north of Iron Range. At the time when the specimens were supposed to have been collected on Cape York, access to the peninsula was essentially restricted to sea travel because of the poor quality of the roads and inaccessible terrain. If the specimens were collected in Australia then the most likely location was Somerset near Cape York, where the majority of collectors of the time based themselves (E.D. Edwards, pers. comm.).

It is possible that *A. celestina* is breeding within the Iron Range area. The paucity of records, however, indicates that the species is rare, although more information is required before a quantitative assessment can be made.

## References

- BRABY, M.F. 2000. *Butterflies of Australia: their identification, biology and distribution*. CSIRO Publishing, Melbourne; xxvii + 976 pp.
- EDWARDS, E.D., NEWLAND, J. and REGAN, L. 2001. Lepidoptera: Hesperioidea, Papilionoidea. In: Wells, A. and Houston, W.W.K. (eds), *Zoological Catalogue of Australia*. Vol. 31.6. CSIRO Publishing, Melbourne; x + 465 pp.
- PARSONS, M. [1998]. *The butterflies of Papua New Guinea: their systematics and biology*. Academic Press, London; xvi + 736 pp, 162 pls.
- WATERHOUSE, G.A. 1932. *What butterfly is that?* Angus and Robertson, Sydney; 291 pp, 32 pls.
- WATERHOUSE, G.A. and LYELL, A. 1914. *The butterflies of Australia. A monograph of the Australian Rhopalocera*. Angus and Robertson, Sydney; vi + 239 pp.